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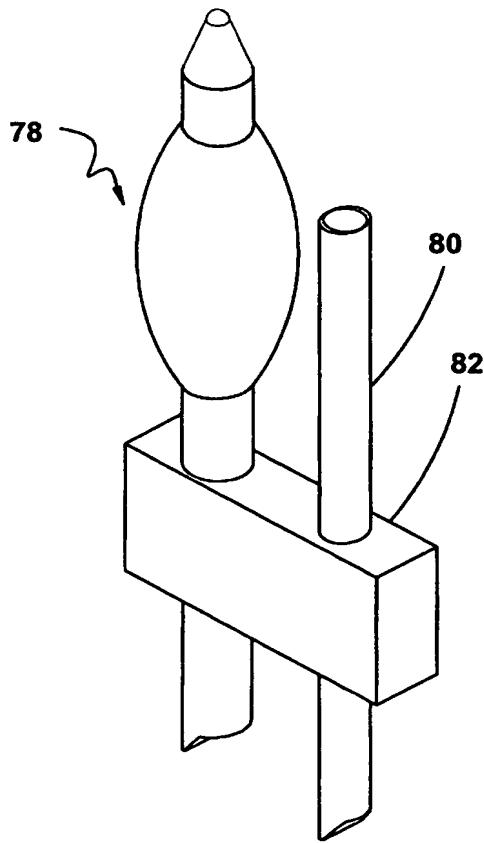
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[Continued on next page]

## (54) Title: INTRA-AIRWAY VENTILATION APPARATUS

(57) Abstract: A tube (30) for inducing gases into critically ill patients, in which the distal end (20) is perforated, and covered with an inflatable - deflatable sleeve (36). Gas is pumped into the proximal end of the tube (30), which inflates the sleeve (36) engaging the inner walls of an airway. The gas, typically a mixture of oxygen, subsequently exits the sleeve (36) and enters the airway. Auxiliary accessories (80) can be attached to the tube (30).



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SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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# INTERNATIONAL SEARCH REPORT

Intern. Application No  
PCT/IL 03/00939

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A61M16/04 A61F2/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 A61M A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 153 863 A (HILTON CECIL LEWINSOHN) 29 May 1969 (1969-05-29) page 1, line 47 - line 88; figure 1 -----	1
Y	US 3 481 339 A (PUIG JORGE ALBERTO MILLET) 2 December 1969 (1969-12-02) column 4, line 28 - column 5, line 12; figure 1 column 6, line 5 - line 16 -----	2
X	US 4 335 723 A (PATEL BHUPENDRA C) 22 June 1982 (1982-06-22) column 4, line 35 - line 45; figure 1 -----	1
Y		2

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

25 March 2004

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29 JUN 2004

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Zeinstra, H

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IL 03/00939

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: 10-14 because they relate to subject matter not required to be searched by this Authority, namely:  
**Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy** **Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery**
2.  Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1,2

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box I.1

Claims Nos.: 10-14

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

**1. claims: 1,2**

Tube for introducing gases into critically ill patient comprising a sealed distal orifice.

(Problem: During insertion of the tube in the trachea, it happens that mucous parts enter and block the lumen of the tube).

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**2. claims: 1,3**

Tube for introducing gases into critically ill patient comprising a perforated distal orifice.

(Problem: gas leakage during ventilation of the patient)

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**3. claims: 1,4,5**

Tube for introducing gases into critically ill patient comprising a clamp.

(Problem: it is difficult to track and hold the positionning of the distal end of the tube in the lung)

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**4. claims: 1,6**

Tube for introducing gases into critically ill patient comprising a side port.

(Problem: it is difficult to introduce medication to the patient without disconnecting the ventilation of the patient)

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**5. claims: 1,7-9,15,16**

Tube for introducing gases into critically ill patient comprising a sensor at the distal end.

(Problem: the introduction of the tube in the lung is difficult)

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL 03/00939

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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